



Global climate change adaptation priorities for biodiversity and food security

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Abstract:

International policy is placing increasing emphasis on adaptation to climate change, including the allocation of new funds to assist adaptation efforts. Climate change adaptation funding may be most effective where it meets integrated goals, but global geographic priorities based on multiple development and ecological criteria are not well characterized. Here we show that human and natural adaptation needs related to maintaining agricultural productivity and ecosystem integrity intersect in ten major areas globally, providing a coherent set of international priorities for adaptation funding. An additional seven regional areas are identified as worthy of additional study. The priority areas are locations where changes in crop suitability affecting impoverished farmers intersect with changes in ranges of restricted-range species. Agreement among multiple climate models and emissions scenarios suggests that these priorities are robust. Adaptation funding directed to these areas could simultaneously address multiple international policy goals, including poverty reduction, protecting agricultural production and safeguarding ecosystem services.

Source: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3749124>

Resource Description

Climate Scenario :

specification of climate scenario (set of assumptions about future states related to climate)

Special Report on Emissions Scenarios (SRES)

Special Report on Emissions Scenarios (SRES) Scenario: SRES A2, SRES B1

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Food/Water Security

Food/Water Security: Agricultural Productivity

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:



resource focuses on specific location

Global or Unspecified

Health Co-Benefit/Co-Harm (Adaption/Mitigation):

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

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Health Impact:

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology:

type of model used or methodology development is a focus of resource

Exposure Change Prediction

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status

Resource Type:

format or standard characteristic of resource

Research Article

Timescale:

time period studied

Long-Term (>50 years)

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

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